

## TITLE OF THE INVENTION

### **[0001] Synergistic Antimicrobial Compositions and Methods of Inhibiting Biofilm Formation**

## CROSS-REFERENCE TO RELATED APPLICATIONS

**[0002]** This application claims priority of invention from U.S. provisional application number 60/497,337, filed August 25, 2003 and Canadian patent application number [not yet known] filed December 4, 2003.

## FIELD OF THE INVENTION

**[0003]** This invention relates to synergistic antimicrobial compositions which inhibit biofilm formation on or in medical devices such as catheters as well as other devices.

## BACKGROUND OF THE INVENTION

**[0004]** Biofilms are medically and industrially important because they can accumulate on a wide variety of substrates and are resistant to antimicrobial agents and detergents. Microbial biofilms develop when microorganisms irreversibly adhere to a surface and produce extracellular polymers that facilitate adhesion and provide a structural matrix. Therefore inhibiting adhesion to surfaces is important. This surface may be inert, non-living material or living tissue.

**[0005]** Biofilm-associated microorganisms behave differently from planktonic (freely suspended) organisms with respect to growth rates and ability to resist antimicrobial treatments and therefore pose a public health problem. Many chronic infections that are difficult or impossible to eliminate with conventional antibiotic therapies are known to involve biofilms. A partial list of the infections that involve biofilms includes: otitis